IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An inductive transmission system for inductive transmission of power and full duplex data signals between a first device ~~(1)~~ and a second device ~~(2)~~, comprising:

a bidirectional inductive channel ~~(6)~~ between the first device ~~(1)~~ and the second device ~~(2)~~,

first transmission means ~~(121)~~ for transmitting a power signal at a first frequency from the first device ~~(1)~~ to the second device ~~(2)~~ over the inductive channel ~~(6)~~,

a first modulating device ~~(21)~~ for modulating a first data signal at a first modulation frequency,

a second modulating device ~~(15)~~ for modulating a second data signal at a second modulation frequency,

second transmission means ~~(124)~~ for transmitting the modulated first data signals from the first device ~~(1)~~ to the second device

~~(2)~~ over the inductive channel ~~(6)~~, and for transmitting the modulated second data signals from the second device ~~(2)~~ to the first device ~~(1)~~ over the inductive channel ~~(6)~~,

wherein the first modulation frequency and the second modulation frequency are ~~at least a factor two~~ an even factor apart, wherein the transmission system furthermore comprises detection means for demodulating the first data signal at the first device and demodulating the second data signal ~~on the first device (1) side respectively~~ on at the second device ~~(2) side,~~ and signal cancellation means for cancellation of the first data signal ~~respectively second data signal~~ from the ~~transmitted~~ second data signal ~~respectively transmitted first data signal~~ received at the first device ~~(1) side respectively second device (2) side~~ and cancellation of the second data signal from the first data signal received at the second device.

2. (Currently Amended) ~~An~~ The inductive transmission system according to claim 1, wherein the first modulating device ~~(21)~~ and the second modulating device ~~(15)~~ are suitable for performing amplitude modulation.

3. (Currently Amended) ~~An~~ The inductive transmission system according to claim 1, wherein the detection means are synchronous detection means.

4. (Currently Amended) ~~A~~ The inductive transmission system according to claim 1, wherein the first frequency is a factor 10 or more apart from the first and second modulation frequency.

5. (Currently Amended) ~~A~~ The inductive transmission system according to claim 1, wherein the first transmission means ~~(121)~~ comprises a first coil ~~(122)~~ at the first device ~~(1) side~~ and a first coil ~~(123)~~ at the second device ~~(2) side~~.

6. (Currently Amended) ~~A~~ The inductive transmission system according to claim 1, wherein the second transmission means ~~(124)~~ comprises a second coil ~~(125)~~ at the first device ~~(1) side~~ and a second coil ~~(126)~~ at the second device ~~(2) side~~.

7. (Currently Amended) A method for inductive transmission of

power and full duplex data signals between a first device ~~(1)~~ and a second device ~~(2)~~, comprising the acts of:

transmitting power signals from the first device ~~(1)~~ to the second device ~~(2)~~ at a first frequency over an inductive channel ~~(6)~~,

transmitting first data signals modulated at a second frequency from the first device ~~(1)~~ to the second device ~~(2)~~ over the inductive channel ~~(6)~~, ~~and~~

transmitting second data signals modulated at a third frequency from the second device ~~(2)~~ to the first device ~~(1)~~ over the inductive channel ~~(6)~~, the second and third frequency being at ~~least a factor two~~ an even factor apart,

demodulating the first data signal and the second data signal on the first device ~~(1)~~ side respectively second device ~~(2)~~ side, ~~and~~

demodulating the second data signal at the second device,

~~cancellation of~~ canceling the first data signal ~~respectively second data signal from the transmitted second data signal respectively transmitted first data signal~~ from the second data signal received at the first device at the first device ~~(1) side~~

respectively second device ~~(2) side~~, and

canceling the second data signal from the first data signal received at the second device.

8. (Currently Amended) ~~A~~ The method according to claim 7, comprising amplitude modulating the first data signals and the second data signals before transmission.

9. (Currently Amended) ~~A~~ The method according to claim 7, wherein demodulating the first data signal and the second data signal comprises performing synchronous detection.

10. (New) The inductive transmission system of claim 1, further comprising a high pass filter between the first device and the second device, the high pass filter being configured to eliminate the first frequency out of a data channel used for exchange of the first data signal and the second data signal.

11. (New) The inductive transmission system of claim 1, further comprising a high pass filter configured to filter at least

one of the first data signal and the second data signal to eliminate the first frequency.

12. (New) The inductive transmission system of claim 11, wherein the high pass filter passes frequencies above 500Khz.

13. (New) The method of claim 7, further comprising the act of filtering at least one of the first data signal and the second data signal to eliminate the first frequency.

14. (New) The method of claim 13, wherein the filtering act passes frequencies above 500Khz.